

The opinion in support of the decision being entered today is *not* binding
precedent of the Board.

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte GRAHAM ANDREW CAIRNS,
MICHAEL JAMES BROWNLOW, ANDREW KAY, and
HARRY GARTH WALTON

Appeal 2007-0600
Application 09/943,535
Technology Center 2600

Decided: July 5, 2007

Before JAMES D. THOMAS, JOSEPH L. DIXON, and
JAY P. LUCAS, *Administrative Patent Judges*.
DIXON, *Administrative Patent Judge*.

DECISION ON APPEAL

This is a decision on appeal under 35 U.S.C. §§ 6(b) and 134 from the
Examiner's final rejection of claims 1, 2, and 4-16.

We AFFIRM.

BACKGROUND

Appellants' invention relates to driving arrangements for active matrix LCDs. An understanding of the invention can be derived from a reading of exemplary claim 1, which is reproduced below.

1. A driving arrangement for an active matrix liquid crystal display comprising:
 - (a) a multi-format digital data driver arranged to operate in a plurality of different display modes, to receive digital input data in a plurality of different color formats, and to drive data lines of the liquid crystal display so as to cause an image to be displayed by the display corresponding to said input data; and
 - (b) data analysis means arranged to receive said digital input data, to determine the color format of the input data, and to control the data driver to operate in the display mode corresponding to the determined color format of the input data, wherein the data driver is controlled so as to consume less power in low resolution display modes and more power in high resolution display modes based on the determined color format.

PRIOR ART

The prior art references of record relied upon by the Examiner in rejecting the appealed claims are:

| | | |
|----------|-----------------|----------------------|
| Misawa | US 5,250,931 | Oct. 05, 1993 |
| Daher | US 5,327,254 | Jul. 05, 1994 |
| Nishioka | US 5,390,293 | Feb. 14, 1995 |
| Koyama | US 5,767,832 | Jun. 16, 1998 |
| Cairns | EP 0,930,716 B1 | Jul. 21, 1999 |
| Nakagiri | US 6,396,465 B1 | May 28, 2002 |
| | | (filed Nov. 9, 1999) |

REJECTIONS

Claims 1, 2, 5, 9, 10, and 12-14 are rejected under 35 U.S.C. 102(e) as being anticipated by Nishioka.

Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Nishioka in view of Daher.

Claims 6-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nishioka in view of Koyama.

Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Nakagiri in view of Cairns.

Claims 15-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nishioka in view of Misawa.

Rather than reiterate the conflicting viewpoints advanced by the Examiner and the Appellants regarding the above-noted rejections, we make reference to the Examiner's Answer (mailed Jun. 15, 2006) for the reasoning in support of the rejections, and to Appellants' Brief (filed Mar. 27, 2006) and Reply Brief (filed Aug. 11, 2006) for the arguments thereagainst.

OPINION

In reaching our decision in this appeal, we have given careful consideration to Appellants' Specification and claims, to the applied prior art references, and to the respective positions articulated by Appellants and the Examiner. As a consequence of our review, we make the determinations that follow.

At the outset, we note that Appellants have not expressly argued or expressly invoked consideration under 35 U.S.C. § 112, sixth paragraph, in the Brief or in the Reply Brief. Therefore, we give the "data analysis

means” an interpretation as broad as would be reasonable in light of Appellants’ express claim limitations interpreted in light of the disclosure.

Additionally, we note that claim 14 is either an improper dependent claim since it does not further limit independent claim 1, and it should be rewritten in independent format or the claim should be rewritten to further limit the claim as recited in independent claim 1.

35 U.S.C. § 102

A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference. *Verdegaal Bros. Inc. v. Union Oil Co.*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). The inquiry as to whether a reference anticipates a claim must focus on what subject matter is encompassed by the claim and what subject matter is described by the reference. As set forth by the court in *Kalman v. Kimberly-Clark Corp.*, 713 F.2d 760, 772, 218 USPQ 781, 789 (Fed. Cir. 1983), it is only necessary for the claims to “‘read on’ something disclosed in the reference, i.e., all limitations of the claim are found in the reference, or ‘fully met’ by it.” While all elements of the claimed invention must appear in a single reference, additional references may be used to interpret the anticipating reference and to shed light on its meaning, particularly to those skilled in the art at the relevant time. *See Studiengesellschaft Kohle, M.B.H. v. Dart Indus., Inc.*, 726 F.2d 724, 726-27, 220 USPQ 841, 842-43 (Fed. Cir. 1984).

From our review of the Examiner’s rejection of independent claim 1, we find that the Examiner has at least established a prima facie case of anticipation of independent claim 1 and shown that Nishioka teaches all of

the limitations recited in independent claim 1. Therefore, we look to Appellants' Briefs to show error in the Examiner's prima facie case.

Appellants argue that the data analysis means controls the particular display mode of the multi-format digital data driver based on the determined color format of the input data itself (Br. 6-7). Here, we find a slight variation of the argument from the express language of independent claim 1 which states "data analysis means arranged to receive said digital input data, to determine the color format of the input data, and to control the data driver to operate in the display mode corresponding to the determined color format of the input data." Determining the color format of the input data is different from determining the color format from the input data. The manner in which the Examiner interprets independent claim 1 seems to imply that if the format of the input data is varied, then the format of the input data had to have been determined (Answer 6-7). In Nishioka, it is the manner of the determination or what values are used in a calculation or computation upon which the determination is based upon that is of critical importance.

We find no express limitation in the language of independent claim 1 which expressly limits what the determination is based upon. A determination of the format of the input data is made in Nishioka. The determination may be either selected by a user or the system as Appellants agree (Br. 7-10). Nishioka also teaches automatically selecting the number of colors as taught in embodiments four through six at columns 21-23. Therefore, we cannot agree with Appellants that Nishioka does not perform a determination.

Appellants argue that Nishioka selects a display mode based on other factors which do not include the color format of the input data itself. (Br. 7 and Reply Br. 5). We agree with Appellants, but do not find that this specific argument is commensurate in scope with the express language of independent claim 1 which does not recite “factors.” Appellants argue that the difference between Nishioka and the claimed invention is in the “how” the determination is made (Br. 8 and Reply Br. 8). We cannot agree with Appellants that the “how” in the determination is actually made based upon the actual data as a factor in the determination since we do not find this level of specificity in the language of independent claim 1. Therefore, Appellants' argument is not persuasive, and we will sustain the rejection of independent claim 1. Appellants have elected to group dependent claims 2, 5, 9, 10, and 12-14 with independent claim 1. Therefore, we will sustain the rejection of those claims also.

35 U.S.C. § 103

At the outset, we note that to reach a proper conclusion under § 103, the Examiner, as finder of fact, must step backward in time and into the mind of a person of ordinary skill in the art at a time when the invention was unknown, and just before it was made. In light of all the evidence, we review the specific factual determinations of the Examiner to ascertain whether the Examiner has convincingly established that the claimed invention as a whole would have been obvious at the time of the invention to a person of ordinary skill in the art. When claim elements are found in more than one prior art reference, the fact finder must determine “whether a person of ordinary skill in the art, possessed with the understandings and knowledge reflected in the prior art, and motivated by the general problem

facing the inventor, would have been led to make the combination recited in the claims.” *In re Kahn*, 441 F.3d 977, 988, 78 USPQ2d 1329, 1337 (Fed. Cir. 2006). With respect to the role of the Examiner as finder of fact, the Court of Appeals for the Federal Circuit has stated: “the examiner bears the initial burden, on review of the prior art or on any other ground, of presenting a *prima facie* case of unpatentability.” *In re Oetiker*, 977 F.2d 1443, 1445, 24 USPQ2d 1443, 1444 (Fed. Cir. 1992). The Court of Appeals for the Federal Circuit has also noted: “[w]hat the prior art teaches, whether it teaches away from the claimed invention, and whether it motivates a combination of teachings from different references are questions of fact.” *In re Fulton*, 391 F.3d 1195, 1199-1200, 73 USPQ2d 1141, 1144 (Fed. Cir. 2004) (internal citations omitted). In rejecting claims under 35 U.S.C. § 103, it is incumbent upon the Examiner to establish a factual basis to support the legal conclusion of obviousness. *See In re Fine*, 837 F.2d 1071, 1073, 5 USPQ2d 1596, 1598 (Fed. Cir. 1988). In so doing, the Examiner must make the factual determinations set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 17, 148 USPQ 459, 467 (1966). Furthermore, “‘there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness’ [H]owever, the analysis need not seek out precise teachings directed to the specific subject matter of the challenged claim, for a court can take account of the inferences and creative steps that a person of ordinary skill in the art would employ.” *KSR Int’l v. Teleflex Inc.*, 127 S. Ct. 1727, 1741, 82 USPQ2d 1385, 1396 (2007) (quoting *In re Kahn*, 441 F.3d 977, 988, 78 USPQ2d 1329, 1336 (Fed. Cir. 2006)).

With respect to dependent claims 4, 6-8, 11, 15, and 16, Appellants have relied upon the same rationale advanced with respect to independent

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claim 1 which we did not find persuasive above. Therefore, we will sustain the rejection of dependent claims 4, 6-8, 11, 15, and 16 since Appellants have not shown error in the Examiner's initial showing.

CONCLUSION

To summarize, we have sustained the rejection of claims 1, 2, 5, 9, 10, and 12-14 under 35 U.S.C. § 102, and we have sustained the rejections of claims 4, 6-8, 11, 15, and 16 under 35 U.S.C. § 103(a).

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a).

AFFIRMED

tdl/ce

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